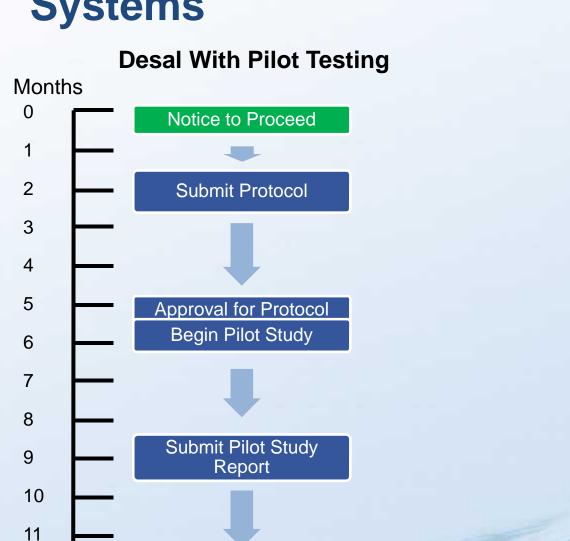
Texas Desal 2015 - Sept. 30 and Oct. 1, 2015

# Texas' New Desalination Rules: What Will They Mean For You?

Justin Sutherland, Ph.D., P.E.



# New Rules Streamline Design of RO/NF Systems



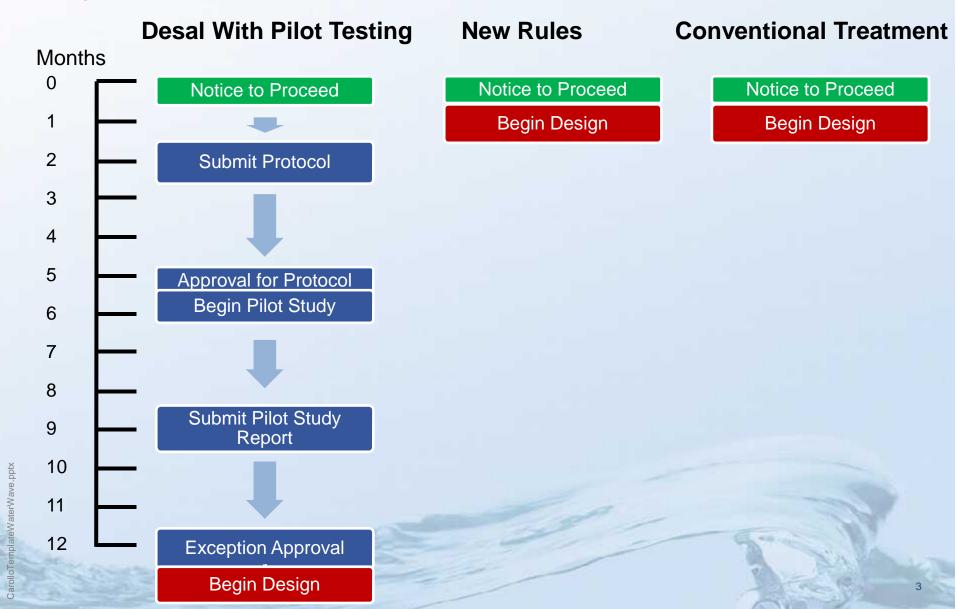
**Exception Approval** 

Begin Design

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## New Rules Streamline Design of RO/NF Systems



# New Desalination Rules Include Several Components

- Engineering Report
  - Design Basis
- Operator Licensing
- Operations Manual

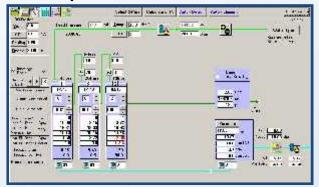
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### **Engineering Report**



## Multiple Approaches Available for Design Basis

#### **Computer Models**



#### Demonstration-Scale Pilot Test



### Single-Element Pilot Test



#### Full-Scale



## Manual of Practice for RO Design Using Models is Available

Manual of Practice for the Use of Computer Models for the Design of Reverse Osmosis/ Nanofiltration Membrane Processes

#### Final Report

by Don DeMackele Thomas F. Seasond, P.F. Juster Sufferland, Ph.D., P.E.

#### Texas Water Development Board

Texas Water Development Board

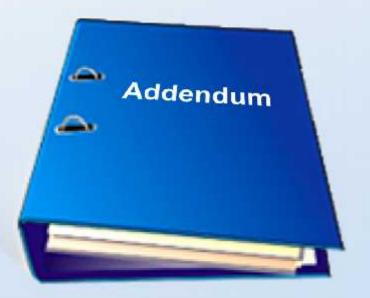
P.O. Box 15231, Copital Station Assim, Texas 28715-3231 January 2011

- Data Requirements
- Modeling Guidance
- Design Basis Development
- Examples
- E-mail or call me for a PDF of the final report
  - jsutherland@carollo.com
  - **-** (512) 453-5383

### TCEQ Approval Is a 2-Step Process



**Before Construction** 



After Start-Up

### **Operator Training**



### **Operations Manual**





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## For more information about this project, please contact:

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